

Part Number: KPDA-3020LVSYCK-J3-PF

Super Bright Yellow

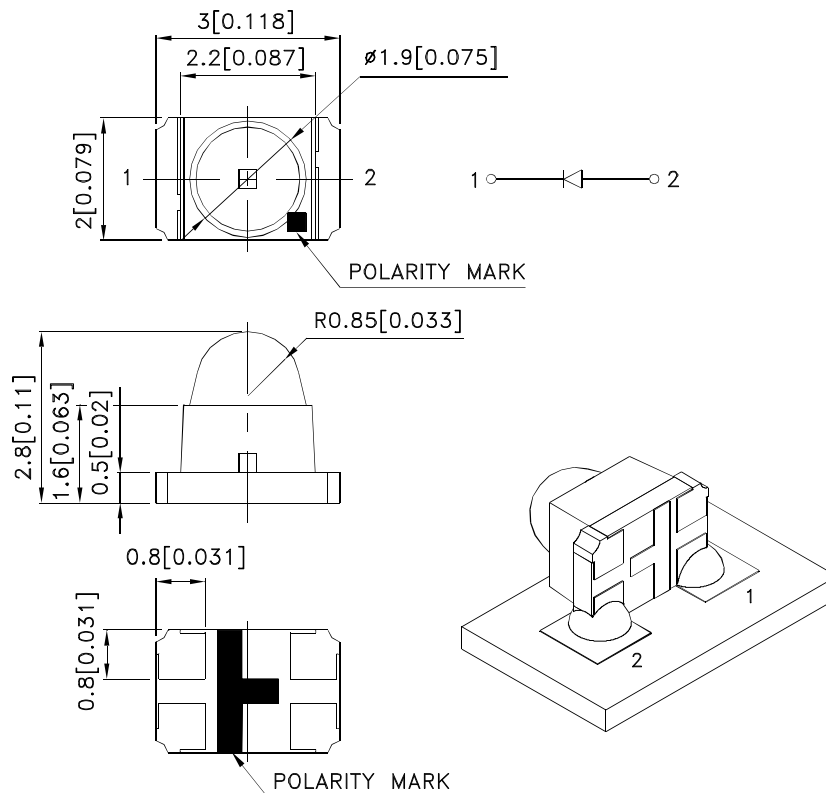
Features

- 3.0mmx2.0mm SMD LED, 2.8mm thickness.
- Low power consumption.
- Ideal for back light and indicator
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- Low current IF=2mA operating.
- RoHS compliant.

Description

The Super Bright Yellow device is based on light emitting diode chip made from AlGaInP.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.2 (0.008") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

| Part No. | Emitting Color (Material) | Lens Type | Iv (mcd) [2] @ 2mA | | Viewing Angle [1] |
|-----------------------|-------------------------------|-------------|-----------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| KPDA-3020LVSYCK-J3-PF | Super Bright Yellow (AlGaInP) | Water Clear | 180 | 500 | 10° |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity / luminous Flux: +/-15%.
3. Luminous intensity value is traceable to CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Emitting Color | Typ. | Max. | Units | Test Conditions |
|--------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| λ _{peak} | Peak Wavelength | Super Bright Yellow | 590 | | nm | I _F =2mA |
| λ _D [1] | Dominant Wavelength | Super Bright Yellow | 590 | | nm | I _F =2mA |
| Δλ _{1/2} | Spectral Line Half-width | Super Bright Yellow | 20 | | nm | I _F =2mA |
| C | Capacitance | Super Bright Yellow | 45 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Super Bright Yellow | 1.85 | 2.1 | V | I _F =2mA |
| I _R | Reverse Current | Super Bright Yellow | | 10 | uA | V _R =5V |

Notes:

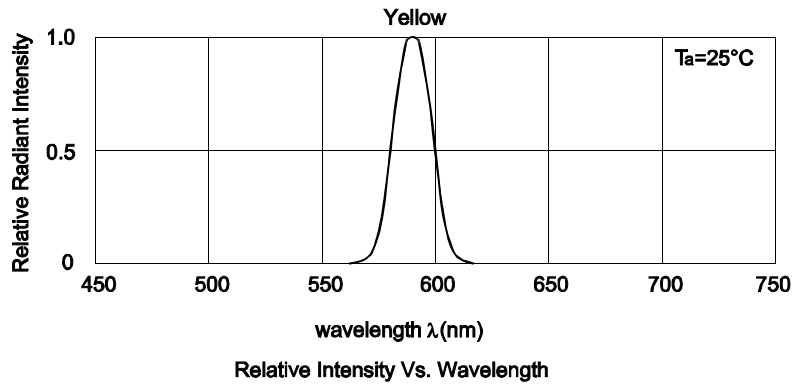
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

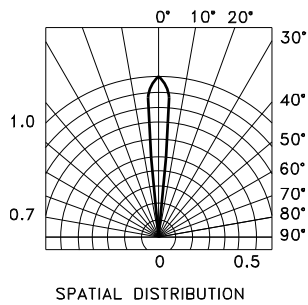
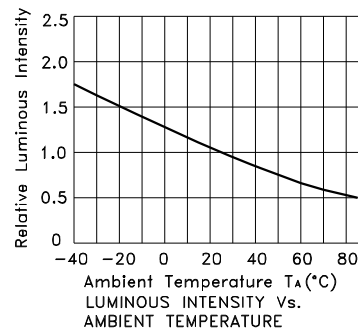
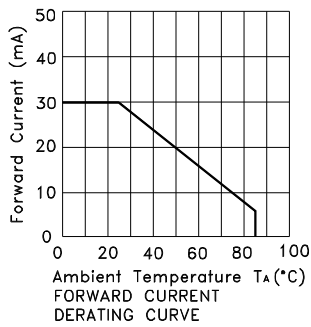
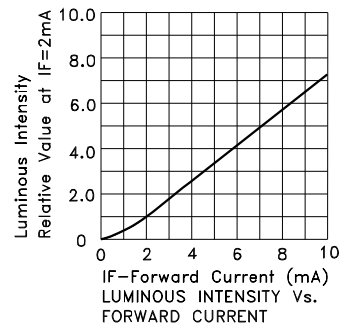
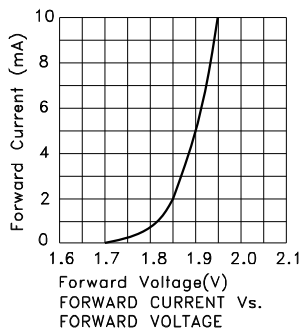
| Parameter | Values | Units |
|--------------------------|----------------|-------|
| Power dissipation | 63 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 140 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +85°C | |
| Storage Temperature | -40°C To +85°C | |

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.



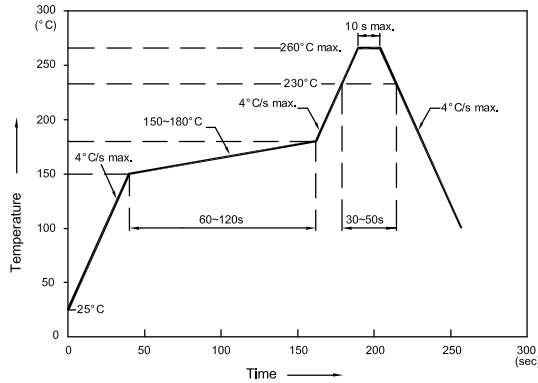
Super Bright Yellow KPDA-3020LVSYCK-J3-PF



KPDA-3020LVSYCK-J3-PF

Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

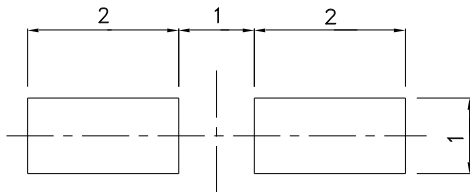
Reflow Soldering Profile For Lead-free SMT Process.



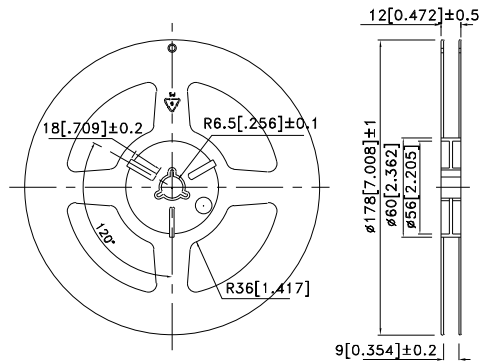
NOTES:

1. We recommend the reflow temperature 245°C (+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

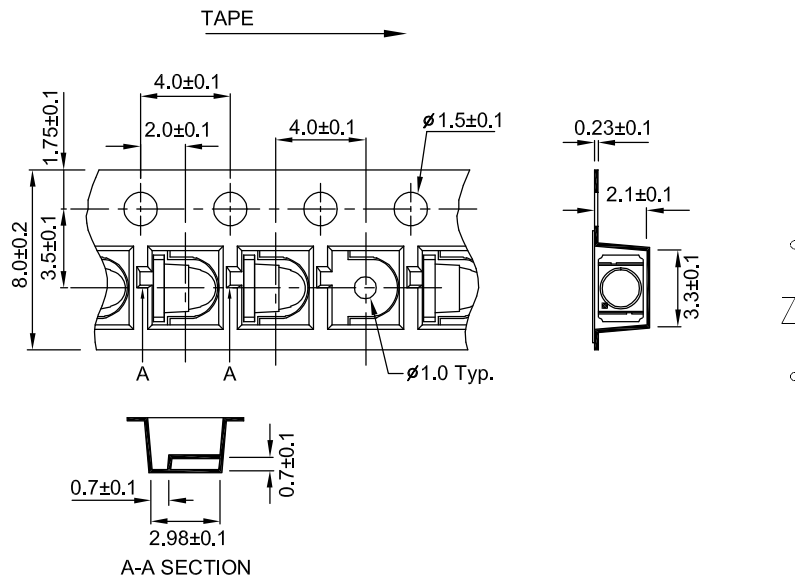
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

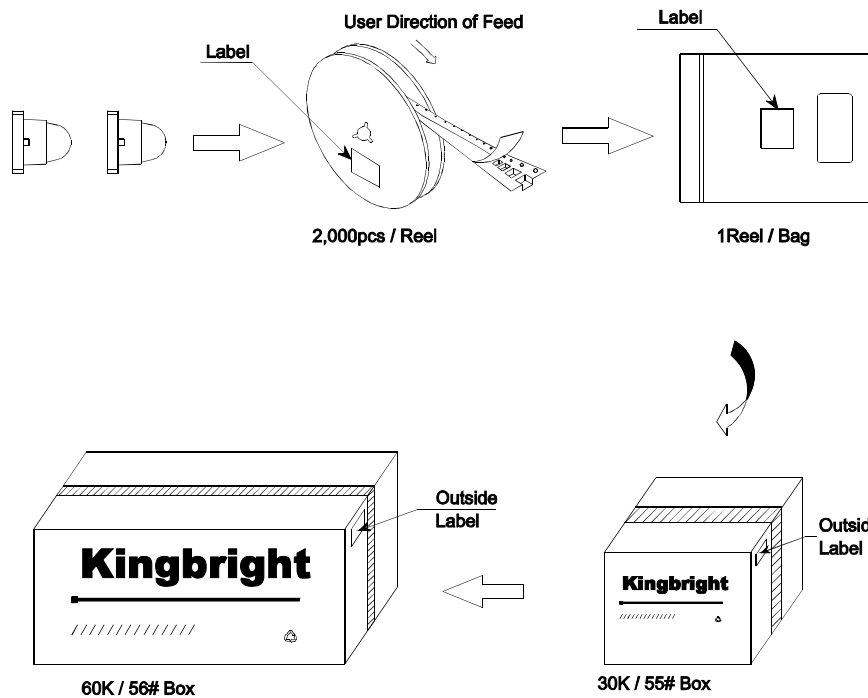


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

KPDA-3020LVSYCK-J3-PF



| | | | | |
|--------------------|--|-----|-----------|--------|
| Kingbright | | | | |
| P/NO: KPDA-3020XXX | | | | |
| QTY: 2,000 pcs | Q.C. | | | |
| S/N: XXXX | <table border="1"> <tr> <td>Q C</td> </tr> <tr> <td>XX XX XXX</td> </tr> <tr> <td>PASSED</td> </tr> </table> | Q C | XX XX XXX | PASSED |
| Q C | | | | |
| XX XX XXX | | | | |
| PASSED | | | | |
| CODE: XXX | | | | |
| LOT NO: | | | | |
| | | | | |
| RoHS Compliant | | | | |

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